

Service Service **Service**



Service Manual

TABLE OF CONTENTS

	Chapter
Technical Specification & Service Tips.....	1
Safety Instructions.....	2
Instruction for Use.....	3
Mechanical Instructions.....	4
Troubleshooting	5
Overall Block Diagram.....	6
Electrical Diagram.....	7
Service Part List.....	8
Revision List.....	9

©Copyright 2005 Philips Consumer Electronics B.V. Eindhoven, The Netherlands
All rights reserved. No part of this publication may be reproduced, stored in a
retrieval system or transmitted, in any form or by any means, electronics,
mechanical, photocopying, or otherwise without the prior permission of Philips

3141 785 32601

1.0 TECHNICAL SPECIFICATION

General

Dimensions (W x H x D):	210 x 39 x 178 mm
Bear Unit Weight:	1.1 kg +/- 5%
Power supply:	
Supply voltage	Input: 100~240V + / - 10% 50/60Hz 0.3A Output: DC 9V 1A
Supply Power consumption (AC adaptor 100/240VAC)	9W + 10%
Operating Temperature	-10 ~ 50degC
Video System	NTSC
Frequency response	20-20kHz +/-1dB
THD 20-20kHz (%):	< /=3%
Dynamic range 1kHz	> /=80dB
Signal/Noise ratio:	> /=80dB
Channel Separation 1kHz	> =60dB
Channel Balance 1kHz	< 3dB

Current consumption

Playback time	
Capacity--- Refer to battery spec	2400mAh
Battery discharge cut-off current	40mA
Max.battery charge current(continue charge) of DCP850 & DCP750	450mA
Charging time	5 +/- 0.5H

Headphone out (headphone output load 2x16 ohm)

Maximum output power:	1.5mW
Frequency response:	+/-3dB
SNR (A-wght):	>65dB
THD (0.2-20kHz):	3%
Left-Right Channel Separation:	> /=50dB
Left-Right Channel Balance:	< /=1dB

Supported disc type

Video Playback
Formats:



Audio Playback
Formats:



Playback disc type:	DVD, Picture-CD, SVCD, Video CD, MP3-CD, CD-R/CD-RW, WMA-CD, DVD-R, DVD-RW, DVD+R, DVD+RW
Video Playback Format:	DVD / VCD / SVCD / CD / JPEG / Divx
Audio Playback Format:	CD/MP3, MP3-DVD, DVD, Divx
Card slot:	SD / MMC (memory up to 1GB)
Disc Diameter	12cm

Pixel specification

Max. 0 bright-dot & max. 3 dark-dots

Factory Service Mode (FSM)

To check the software version and change region code of your DVD Portable

1. Power ON the DVD player and open the DVD door
2. Press the "SETUP" button on remote control, then select the "Preference MENU"
3. Press the remote button in the sequence as 9 -> 6 -> 5 -> 3
4. The LCD display showed the existing region code. Press ▲ (navigation up) or ▼ (navigation down) repeatedly to select the number from 0 to 6.
5. Refer below table for your region code setting

Region Code	Region
1	USA
2	EUROPE
3	ASIA PACIFIC
4	AUSTRALIA, NEW ZEALAND, LATAM
5	RUSSIA, INDIA
6	CHINA

Select "0" setting = Region Free (confidential)

1.0 TECHNICAL SPECIFICATION

Procedure on how to upgrade the software of the DVD Portable

For the best performance of your DVD Portable. Check www.philips.com/support for latest software upgrades available.

A) By CD-ROM

1. Download the "PHILIPS.BIN" file from the Philips support site
2. Unzip the file and then burn it into a CD-ROM to make a disc for upgrade
3. CD-ROM disc name must be "PHILIPS" (otherwise it will not be recognized as a disc for upgrade)
4. Power on the Portable DVD Player with AC/DC adaptor
5. Play CD-ROM for firmware upgrade

Warning: Do not unplug the AC adaptor during firmware upgrade to prevent flash corrupt of the set!!

6. Once upgrade is completed, the player will restart automatically and observed PHILIPS LOGO on the screen.
7. Open the DVD door to remove the disc

B) By SD Card

1. Download the "PHILIPS.BIN" file from the Philips support site
2. Unzip the file and then copy and paste it into a blank SD card
3. Power on the Portable DVD Player with AC/DC adaptor
4. Read the SD card via SD Card slot for firmware upgrade

Warning: Do not unplug the AC adaptor during firmware upgrade to prevent flash corrupt of the set!!

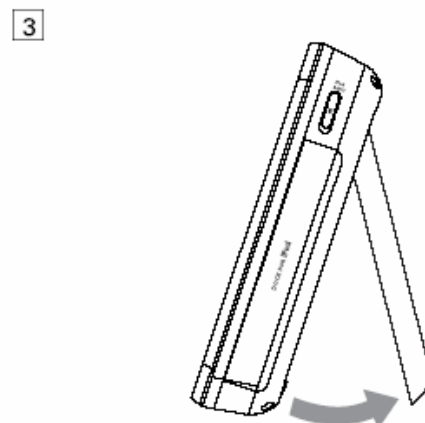
5. Once upgrade is completed, the player will restart automatically and observed PHILIPS LOGO on the screen.

1.0 TECHNICAL SPECIFICATION

Service Policy on PCBA of DCP851

Type	/05	/12	/37	/98
Main PCBA	MLR	MLR	MLR	MLR
TFT PCBA	MLR	MLR	MLR	MLR
KEY PCBA	MLR	MLR	MLR	MLR
BATTERY PCBA	MLR	MLR	MLR	MLR
IPOD PCBA	MLR	MLR	MLR	MLR

MLR = module swap

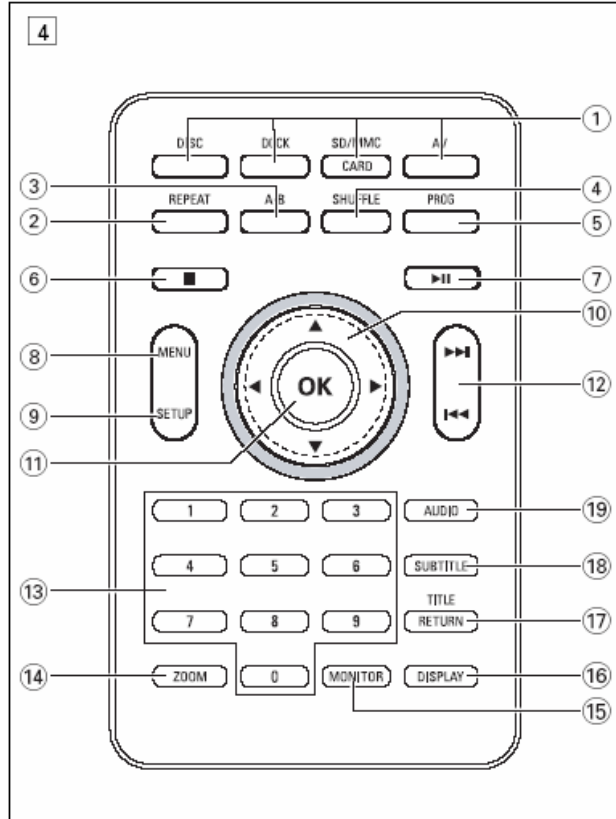


3.0 INSTRUCTION FOR USE

REMOTE CONTROL

Remote controls (see figure 4)

- ① **Source keys** Select respective sources: DISC, iPod, SD/MMC or AV.
- ② **REPEAT** Repeat a chapter/track/title.
- ③ **A-B**.....Repeat playback of a specific section on a disc.
- ④ **SHUFFLE**.....Play a disc randomly.
- ⑤ **PROG**.....Enter the program menu.
- ⑥ ■.....Stop playback or erase a program.
- ⑦ ►||.....Start or interrupt playback.
- ⑧ **MENU**.....Enter or exit the disc contents menu.
- ⑨ **SETUP**.....Enter or exit the system menu.
- ⑩ ▲, ▼, ◀, ▶ Navigate in a menu.
◀ / ▶) search backward/forward in a disc at different speeds.
- ⑪ **OK**.....Confirm a selection.
- ⑫ ◀◀ / ▶▶.....Skip to the previous/next chapter, track or title.
- ⑬ **Numeric Keypad (0-9)**...Input numbers.
- ⑭ **ZOOM**.....Enlarge or reduce a picture or active image on the TFT.
- ⑮ **MONITOR**.....Switch the aspect ratio between 16:9 or 4:3.
- ⑯ **DISPLAY**.....Display information on TFT during playback.
- ⑰ **TITLE/RETURN**.....Display the disc title or return to the previous level of the VCD disc menu.
- ⑱ **SUBTITLE**.....Select a subtitle language.
- ⑲ **AUDIO**.....Select an audio language when playing a DVD disc or select an audio mode (Stereo, Mono-Left or Mono-Right) when playing a VCD/CD disc.

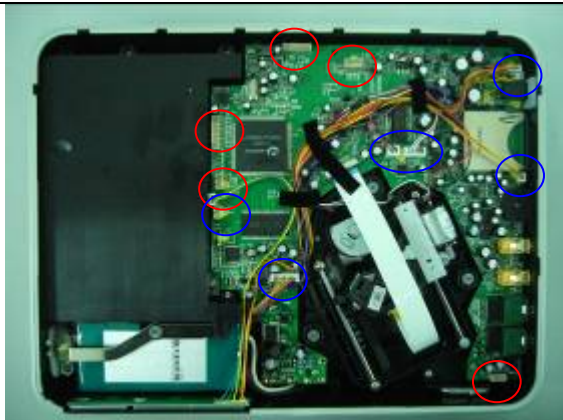


4.0 MECHANICAL INSTRUCTION

Disassembly Procedure



1. Remove 7pcs of screws on the side of bottom cabinet.
2. Open the bottom cabinet. Carefully unplug the housing which is connected with main board and TFT board.



3. Open the bottom cabinet.
First, unplug all the housing which are connected the main board with battery board, key board and IPOD board. (include 2pcs housing and the FFC for the DVD loader)
Second, unplug all the housing which are connected with main board and TFT board (then you can separate TFT board and main board)



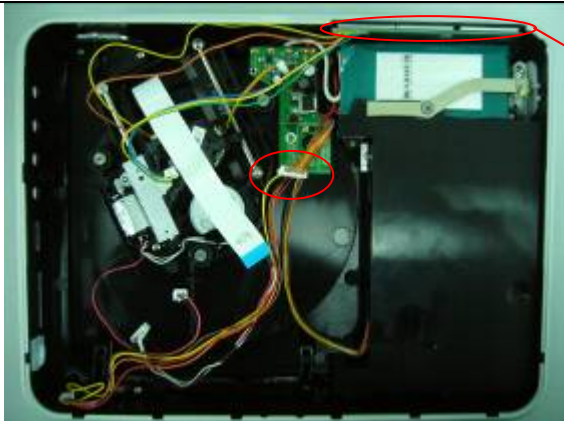
Remove all the screws on the main board (4pcs), take out the main board from bottom cabinet.



4.0 MECHANICAL INSTRUCTION



4. Unplug the FFC and remove 3pcs screws from DVD loader, then you can take out the DVD loader.



5. From this location (between the buttons and battery) you can take out the key board easily.



6. Remove 2pcs of screws on the battery board. You can't take out the battery together with the battery board yet. Due to the battery was fixed by the IPOD plastic docking cover and the press IPOD-lock metal piece.



If you want to take out the battery, you must remove the IPOD plastic docking cover and the press IPOD-lock metal piece first.

Remove 4pcs screws from the cover (shown the left photo), after that remove these 2pcs screws (as shown the above photo).

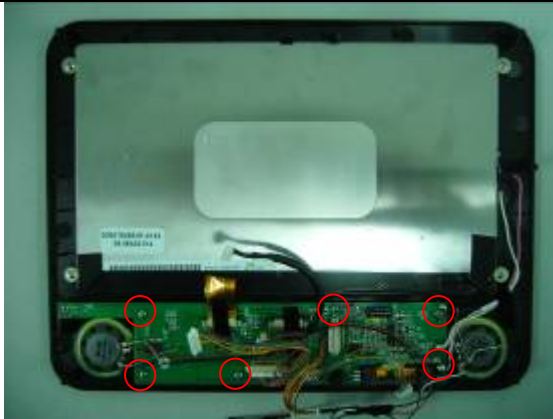
Note: the battery was fixed by 2pcs two side adhesive tape!



4.0 MECHANICAL INSTRUCTION



After done above, you can take out the IPOD plastic docking cover and IPOD docking.



7. Unplug all the housing which are connected with main board and TFT board (don't forget to unplug the Panel FFC from TFT board behind the black flannel).

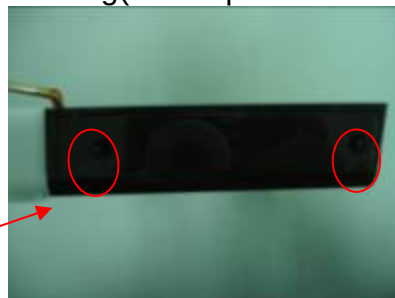
8. Remove 6pcs screws on the TFT board, de-soldering the wire connected between panel and TFT board (don't forget to de-soldering the black ground wire). Then take out the TFT board from display frame.



Remove 4pcs screws which are to fix the panel on the display frame to take out the panel from display frame.



To take out the IPOD board.
Remove 2pcs black screws from the bottom of IPOD docking(as the photo shown)

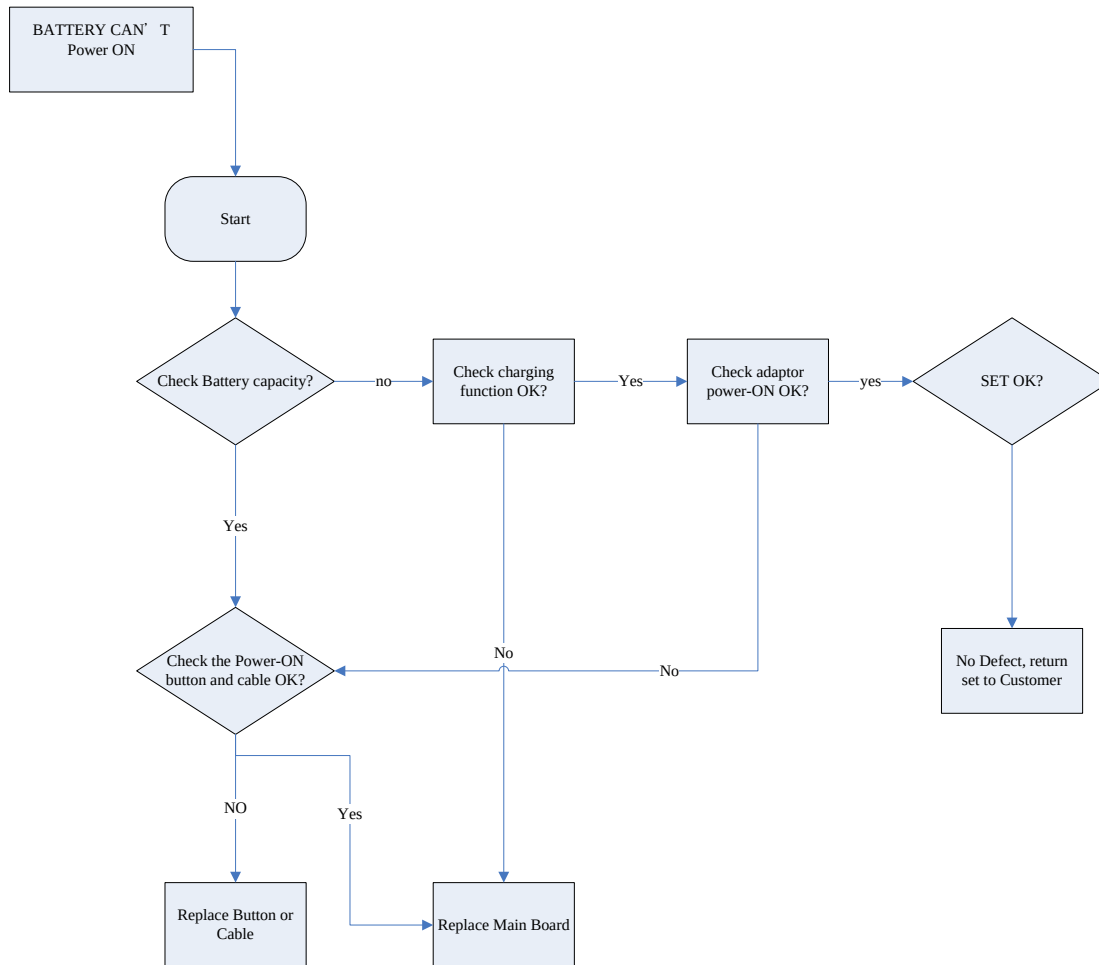


4.0 MECHANICAL INSTRUCTION



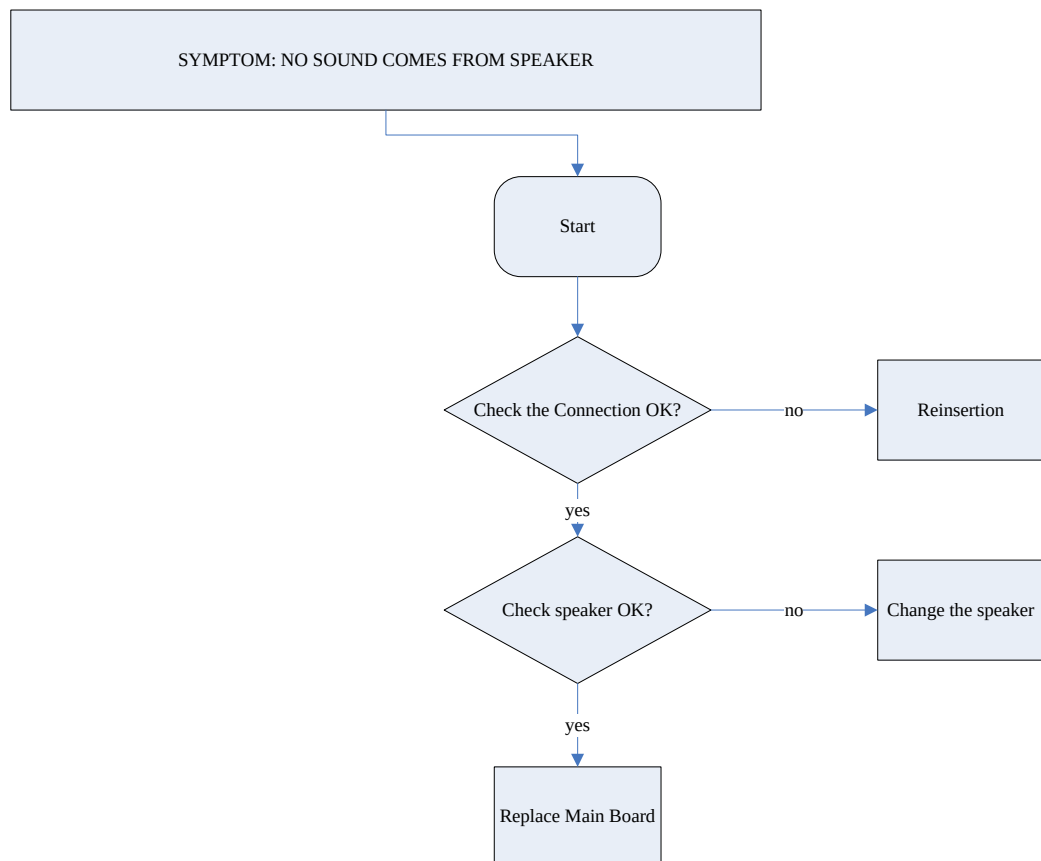
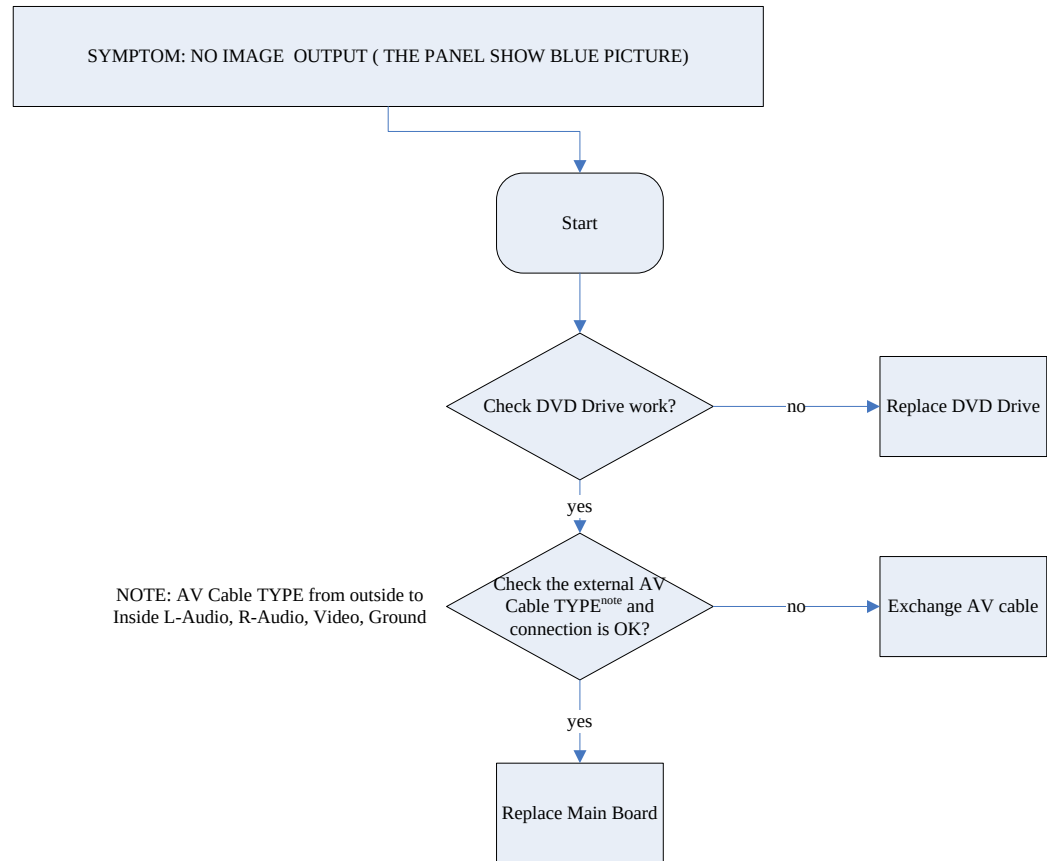
5.0 TROUBLESHOOTING

SYMPTOM: BATTERY NO POWER



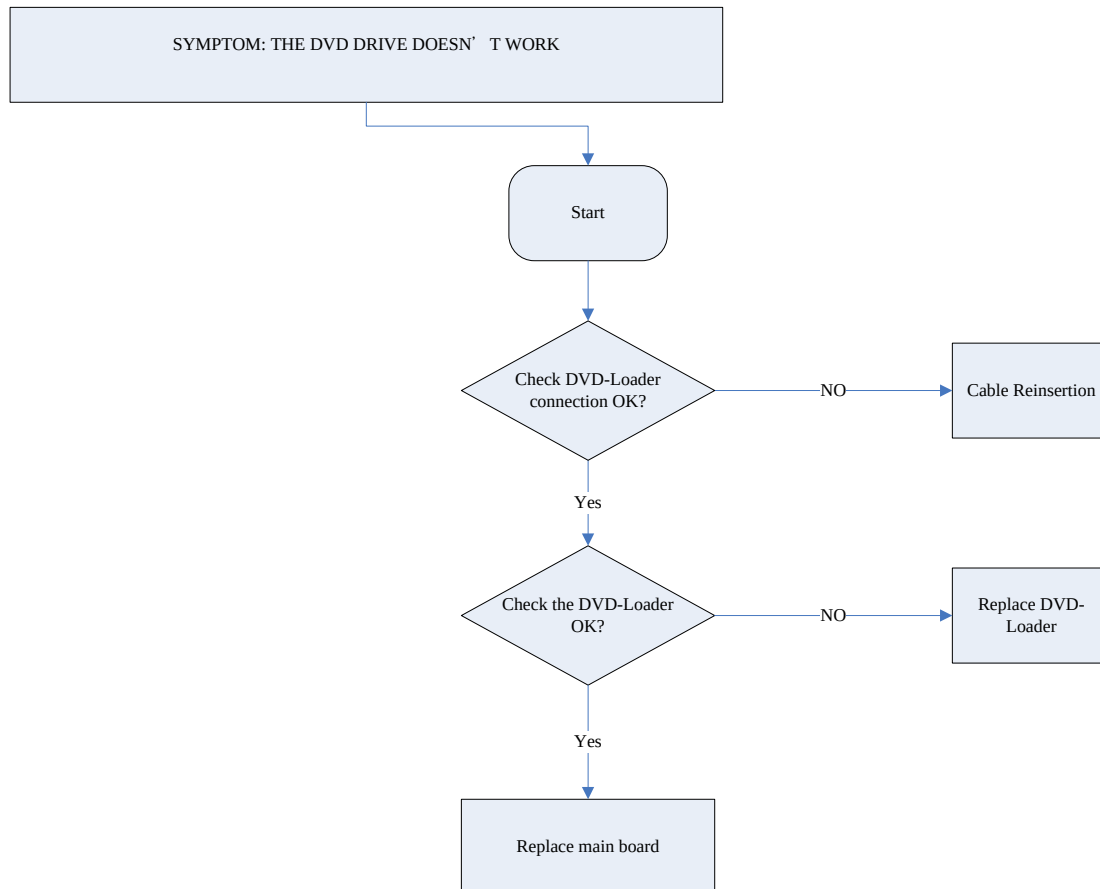
5.0 TROUBLESHOOTING

SYMPTOM: NO IMAGE / NO SOUND



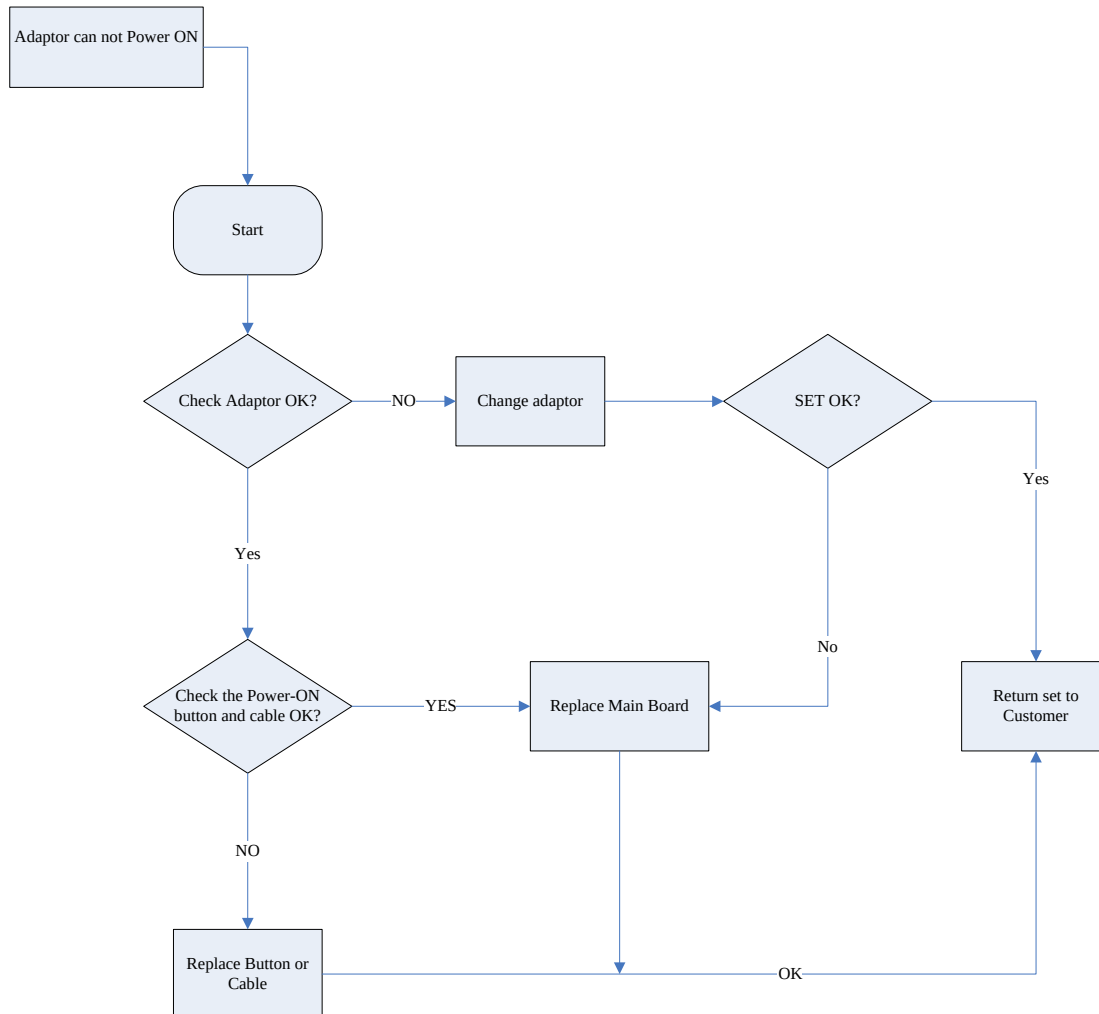
5.0 TROUBLESHOOTING

SYMPTOM: THE DVD DRIVE DOES NOT WORK



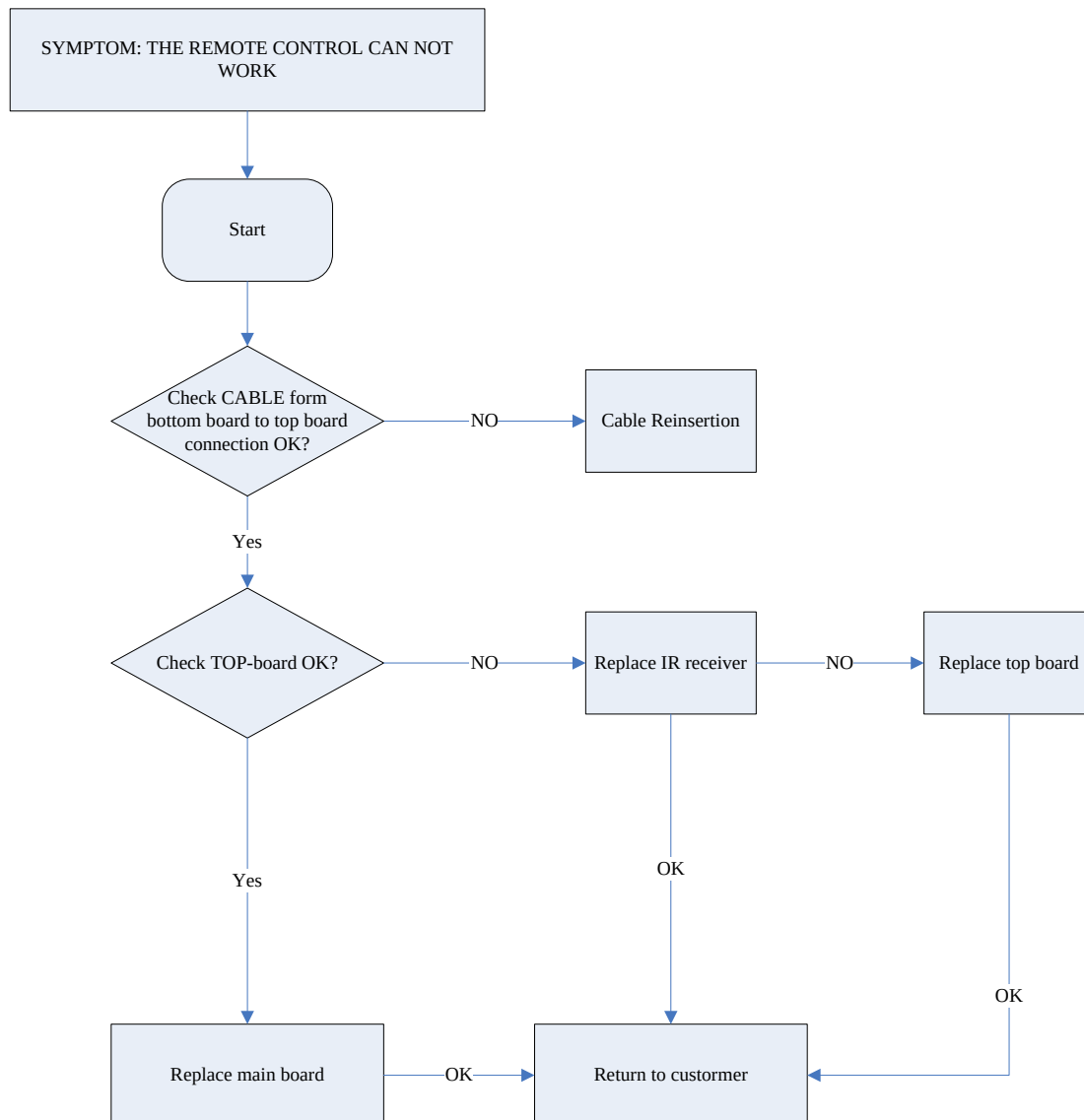
5.0 TROUBLESHOOTING

SYMPTOM: ADAPTOR CANNOT POWER ON



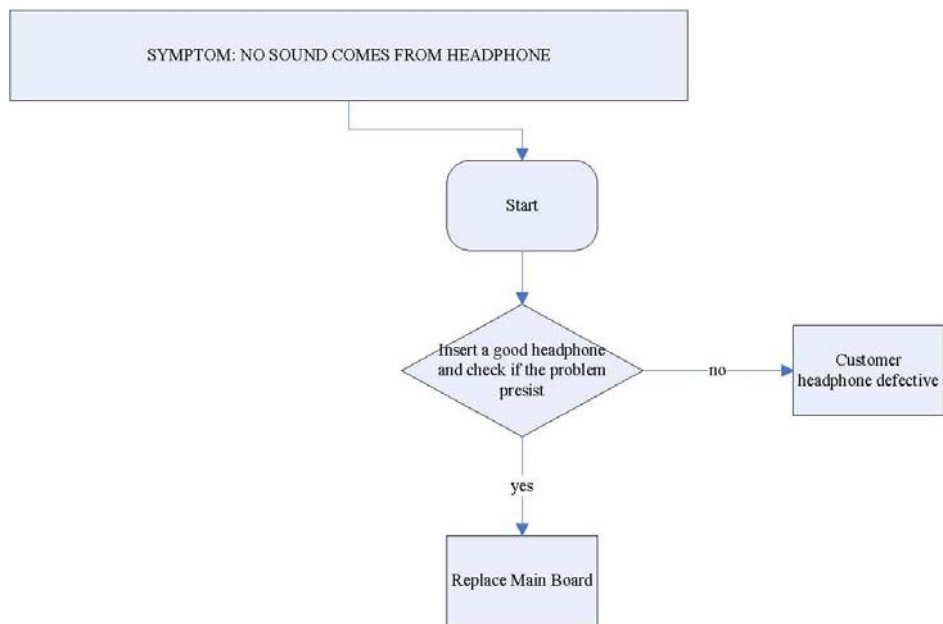
5.0 TROUBLESHOOTING

SYMPTOM: REMOTE CONTROL CANNOT WORK



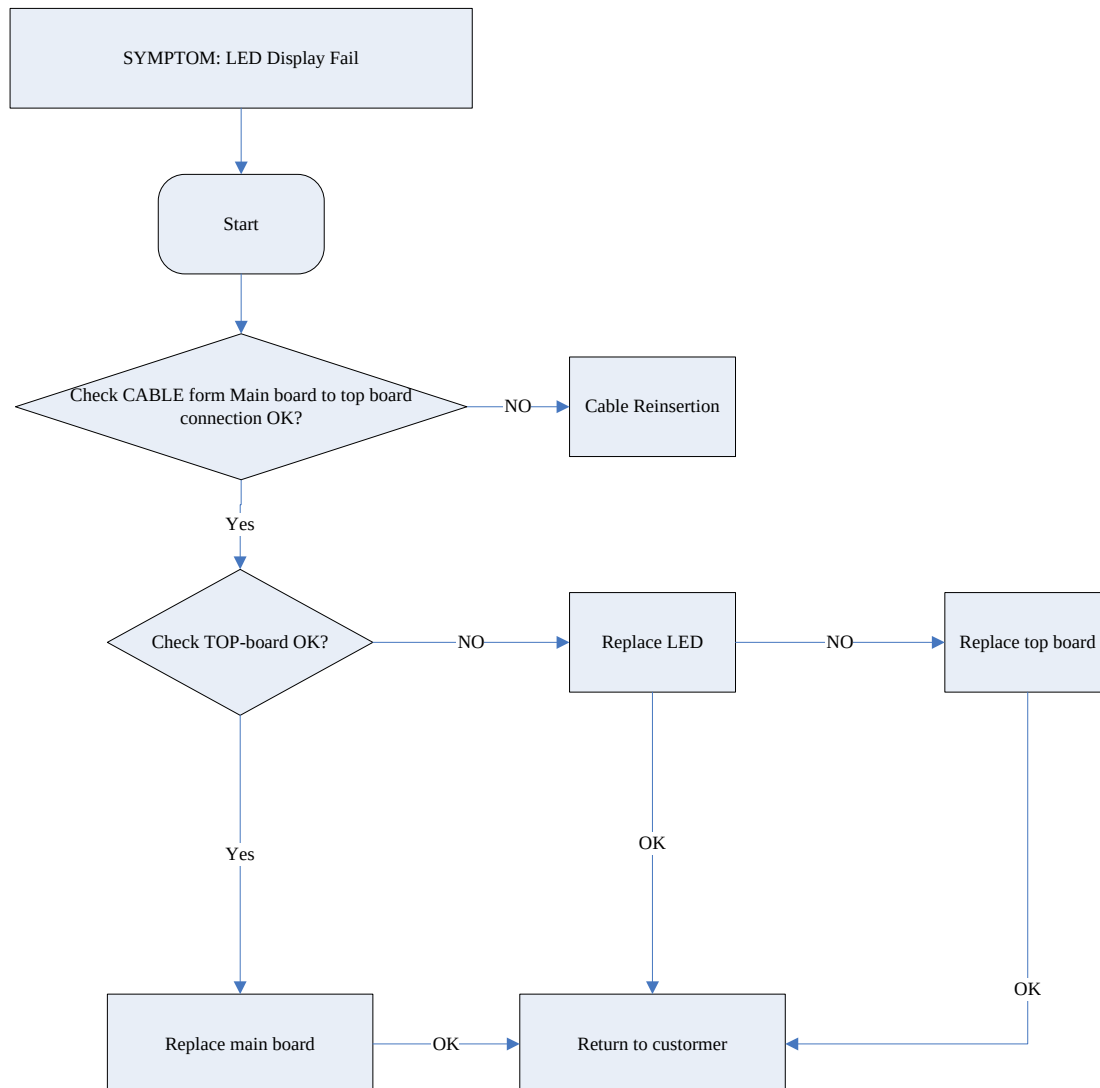
5.0 TROUBLESHOOTING

SYMPTOM: NO SOUND FROM HEADPHONE



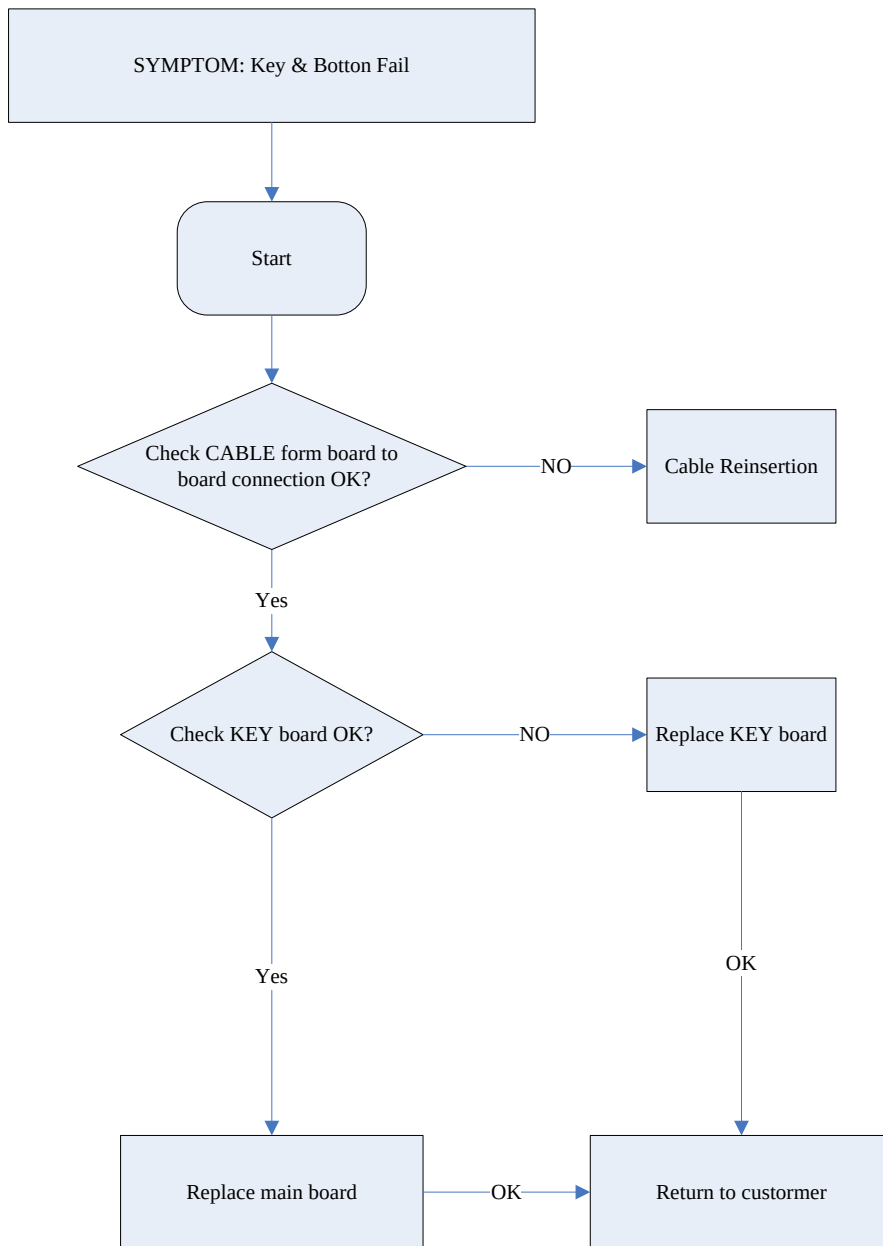
5.0 TROUBLESHOOTING

SYMPTOM: LED DISPLAY FAILURE

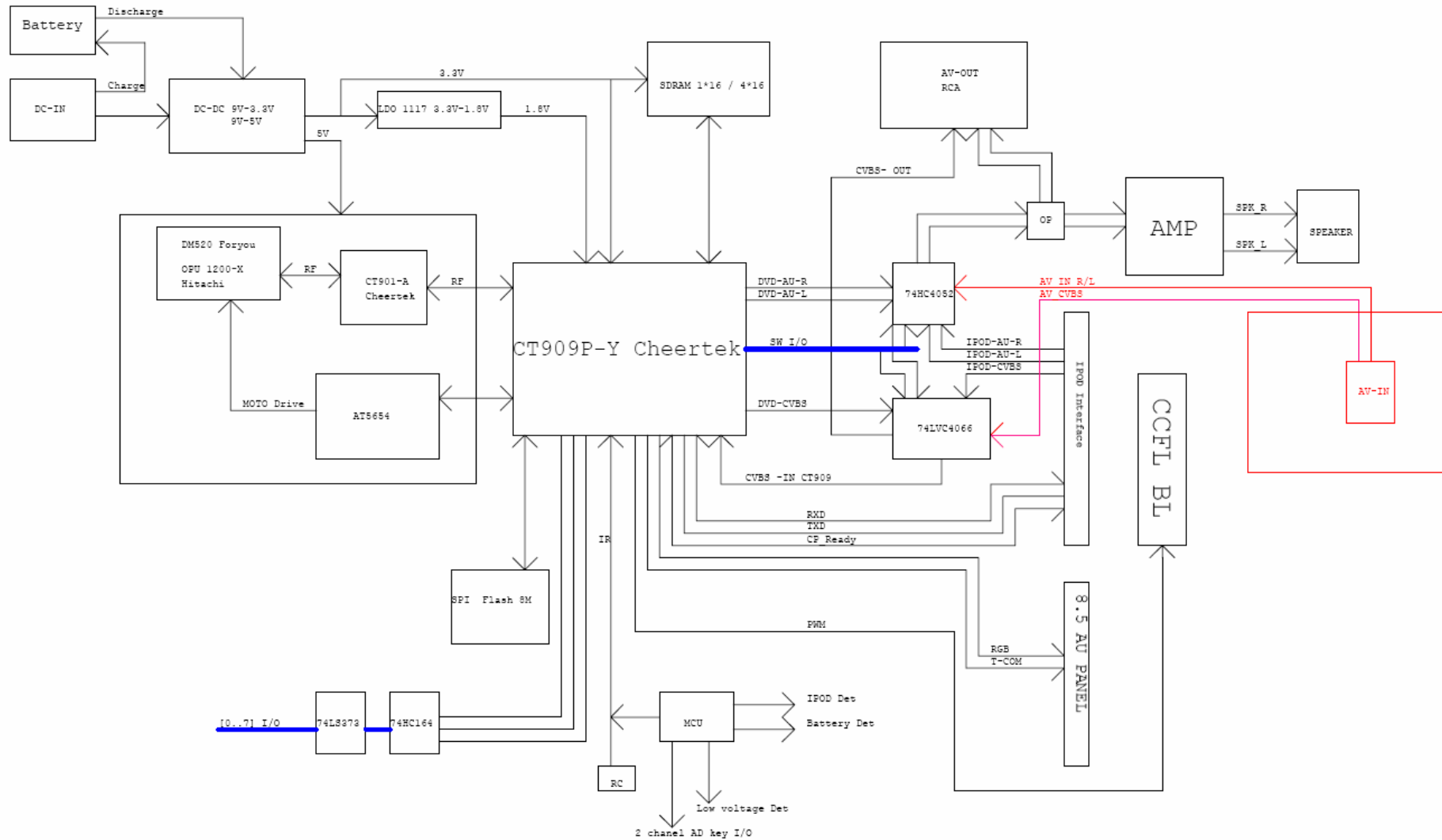


5.0 TROUBLESHOOTING

SYMPTOM: KEY & BOTTON FAILURE



6.0 BLOCK DIAGRAM



7.0 ELECTRICAL DIAGRAM

The diagrams listed on the following pages:

Part 1 – Schematic diagram of MAIN BOARD (7 pages)

Part 2 – Schematic diagram of TFT DRIVER BOARD AND KEY BOARD (3 pages)

Part 3 – Schematic diagram of IPOD BOARD (1 page)

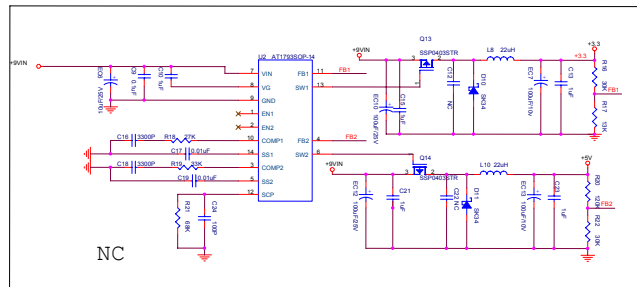
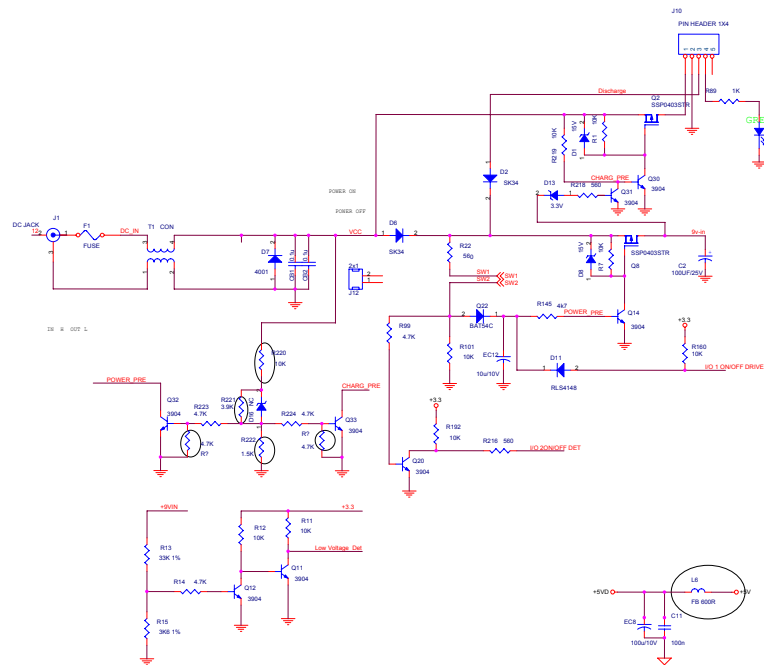
Part 4 – PCBA layout diagram of MAIN BOARD (2 pages – top and bottom side)

Part 5 – PCBA layout diagram of TFT DRIVER BOARD (2 pages – top and bottom side)

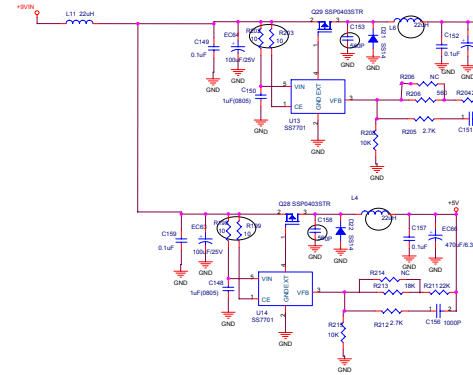
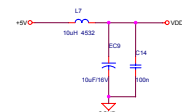
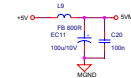
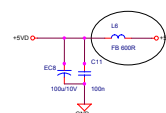
Part 6 – PCBA layout diagram of KEY BOARD (2 pages – top and bottom side)

Part 7 – PCBA layout diagram of IPOD BOARD (2 pages – top and bottom side)

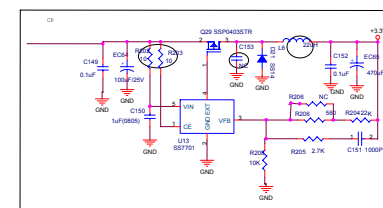
Part 8 – PCBA layout diagram of BATTERY BOARD (2 pages – top and bottom side)



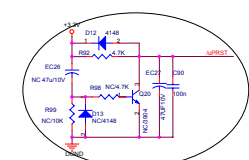
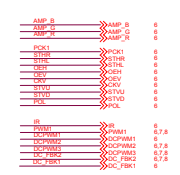
POWER ON
INDICATION



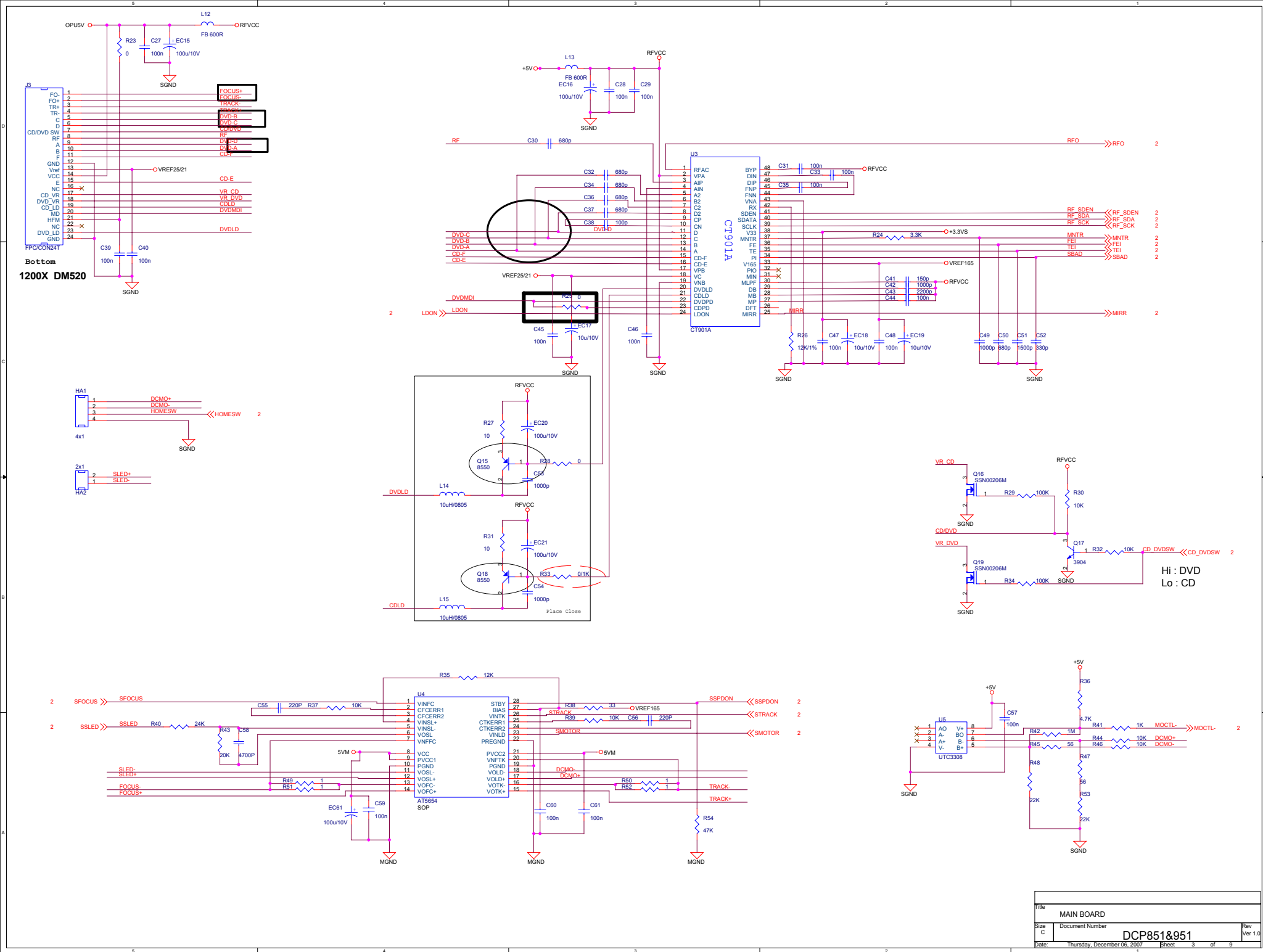
1.8V
5V
3.3V

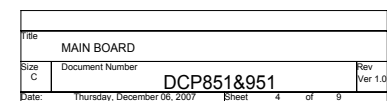
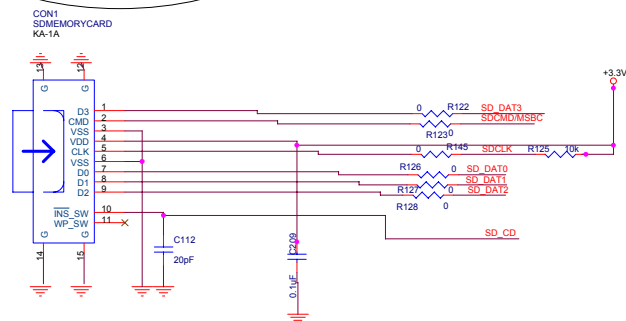
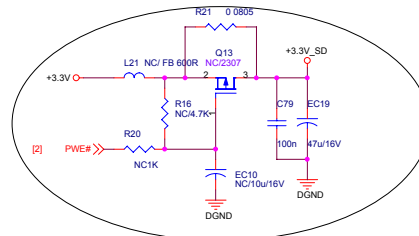
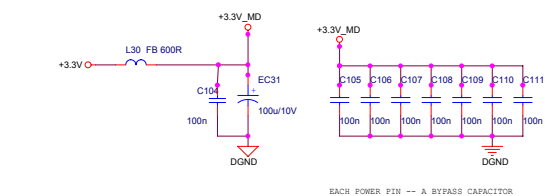


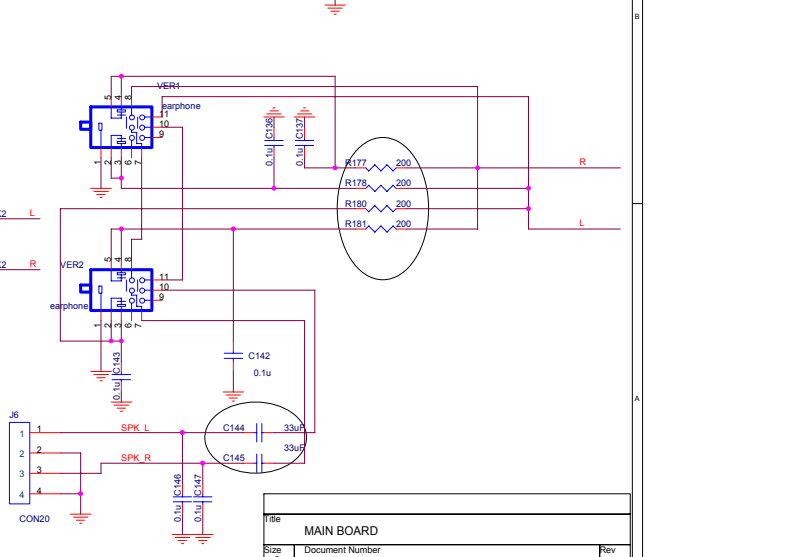
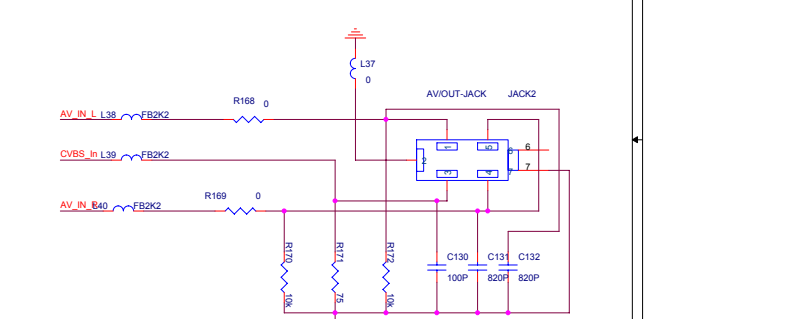
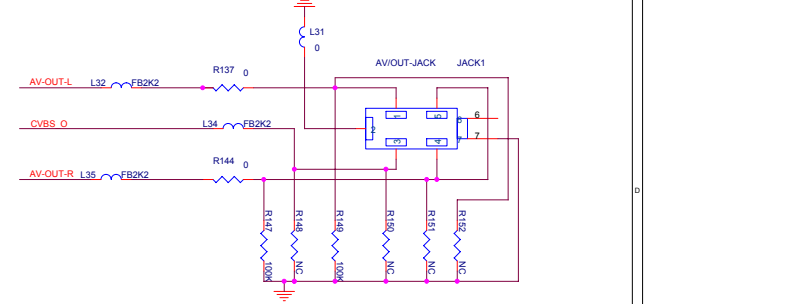
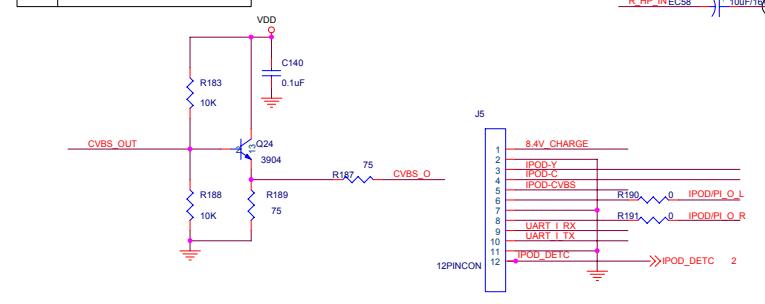
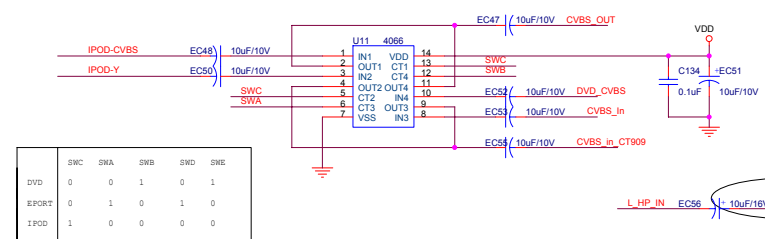
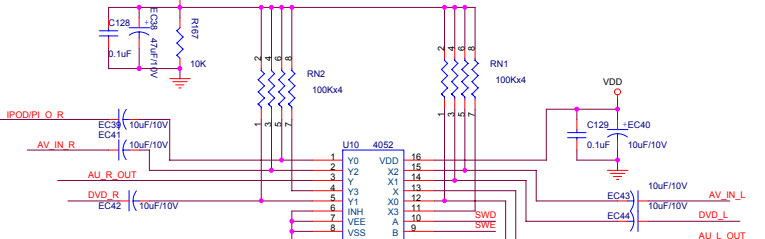
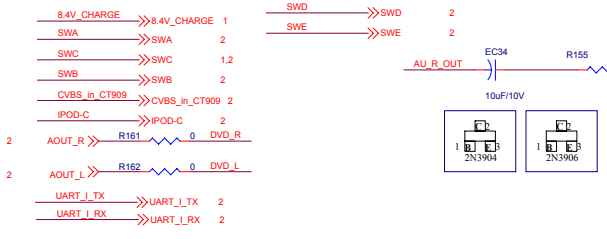
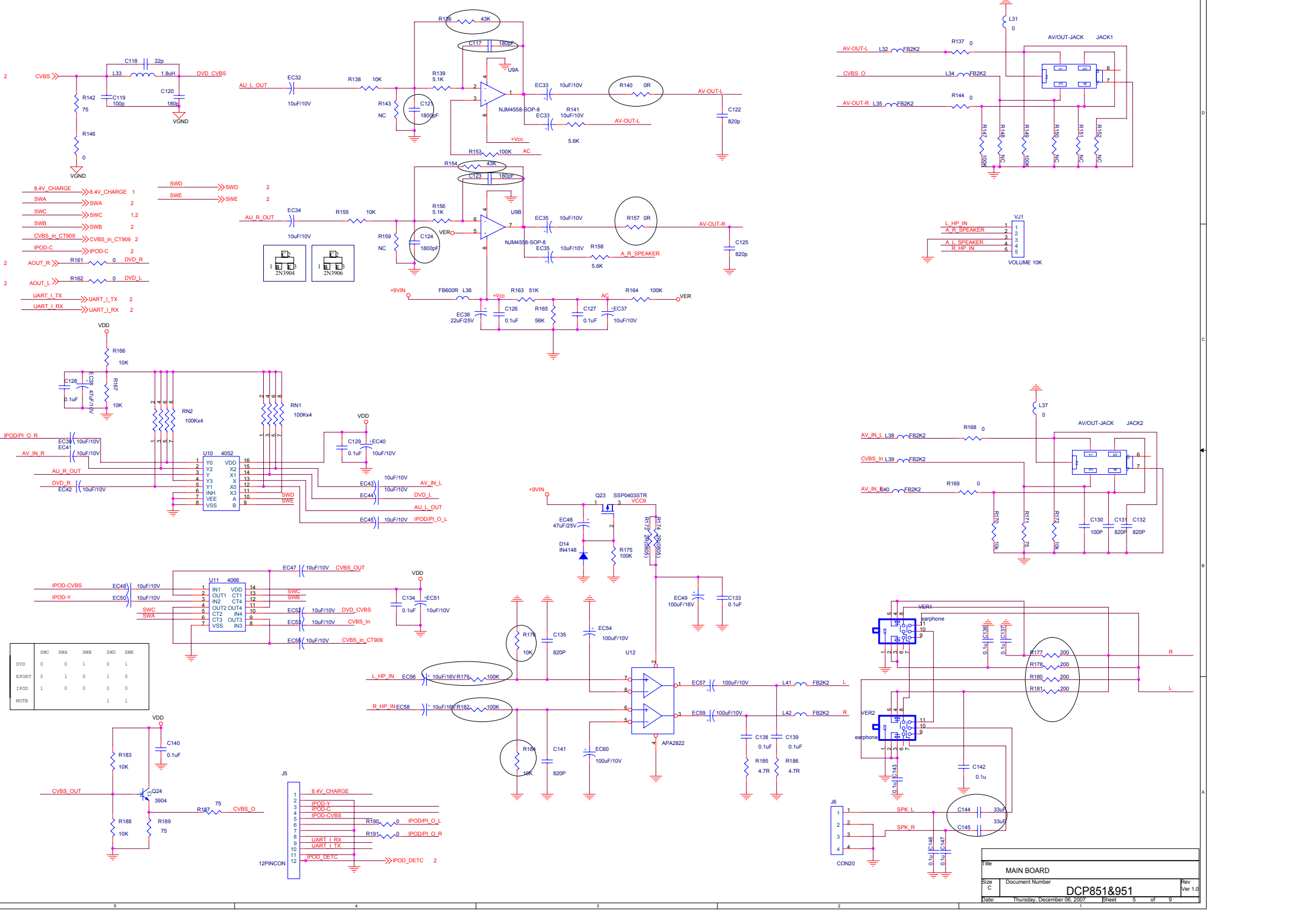
MAIN BOARD		
Rev	Document Number	Rev
D	DCP8518951	Rev 1.0
Copyright © 2018, All Rights Reserved. DCP8518951		



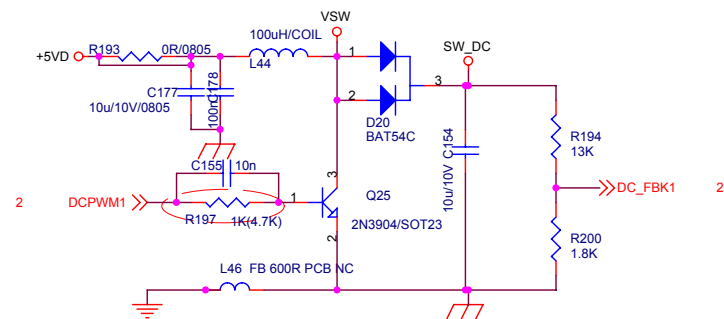
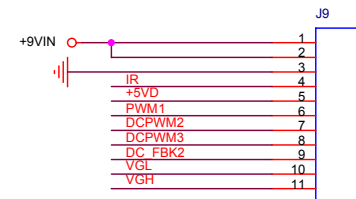
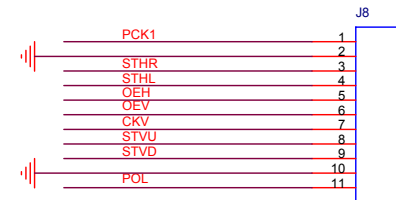
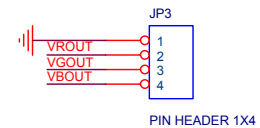
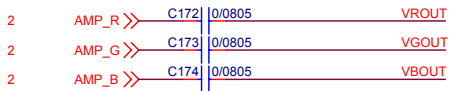
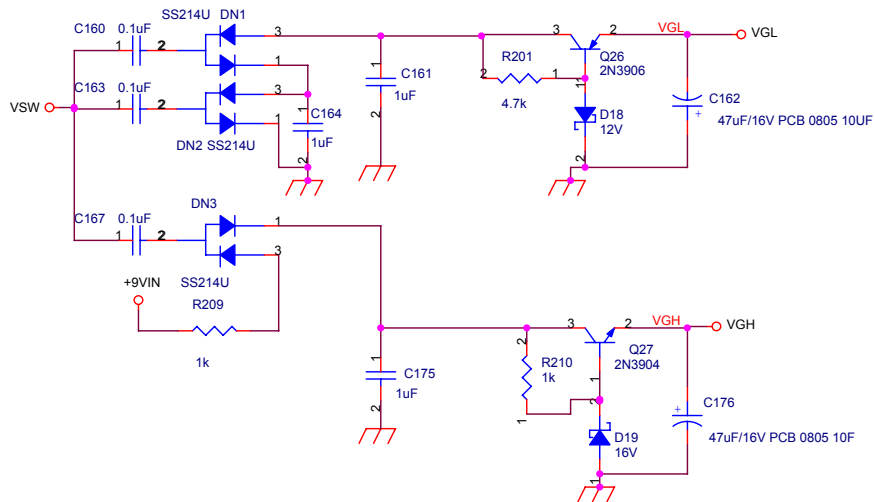
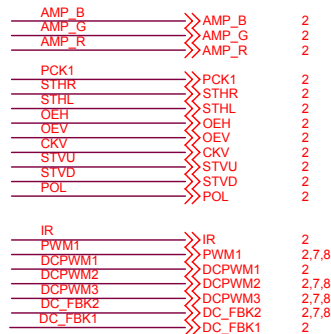
Title			
MAIN BOARD			
Size D	Document Number		Rev
	DCP851&951		1 of 1
Date:	Thursday, December 05, 2002	Sheet	2 of 9



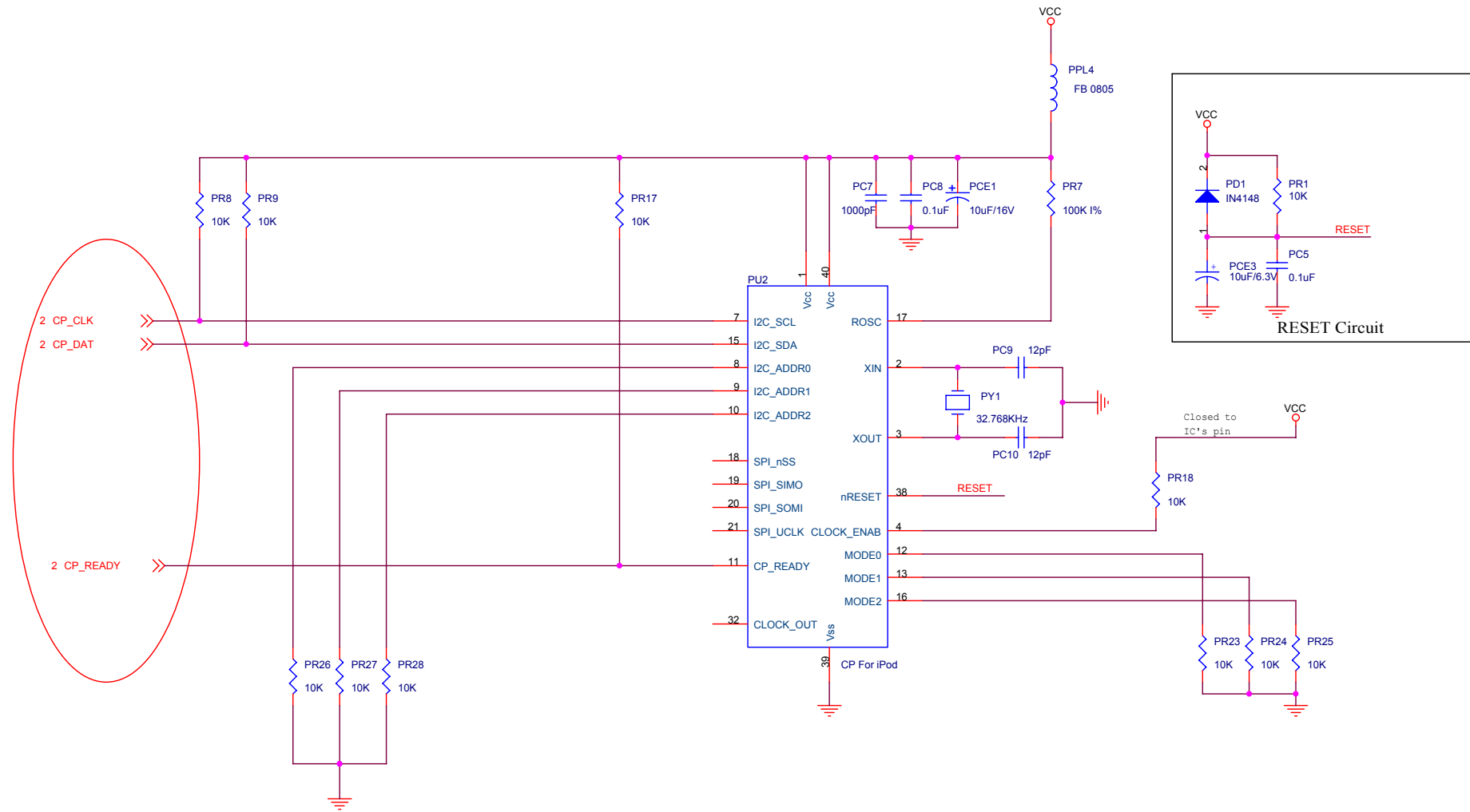




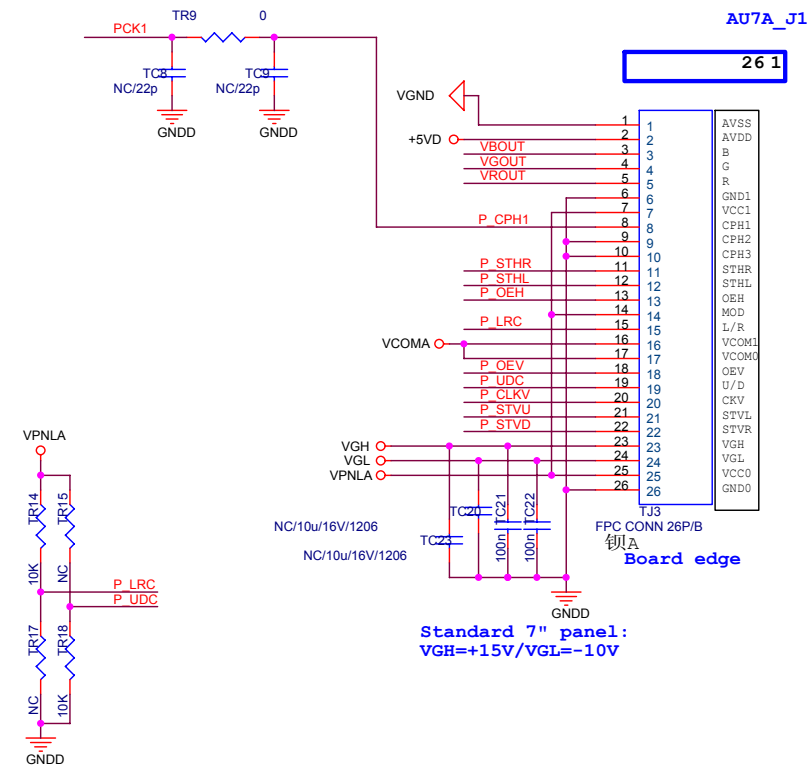
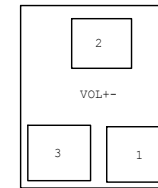
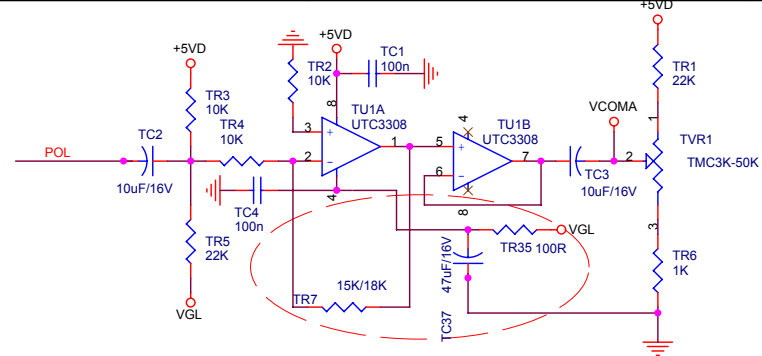
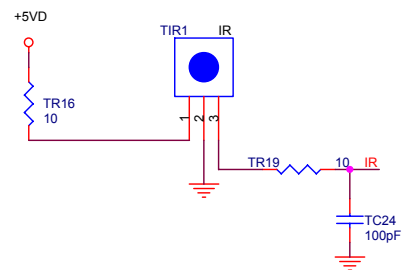
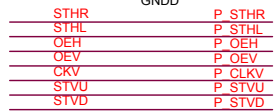
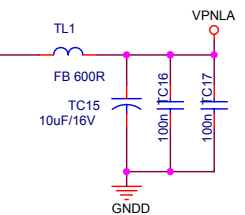
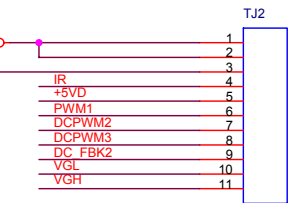
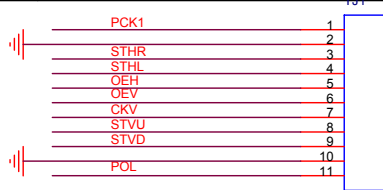
MAIN BOARD		
Size	Document Number	Rev
C	DCP851&951	Ver 1.0
Date	Thursday, December 05, 2007	Sheet 5 of 9



Title			
MAIN BOARD			
Size	Document Number		Rev
B	DCP851&951		Ver 1.0
Date:	Thursday, December 06, 2007	Sheet	5 of 9

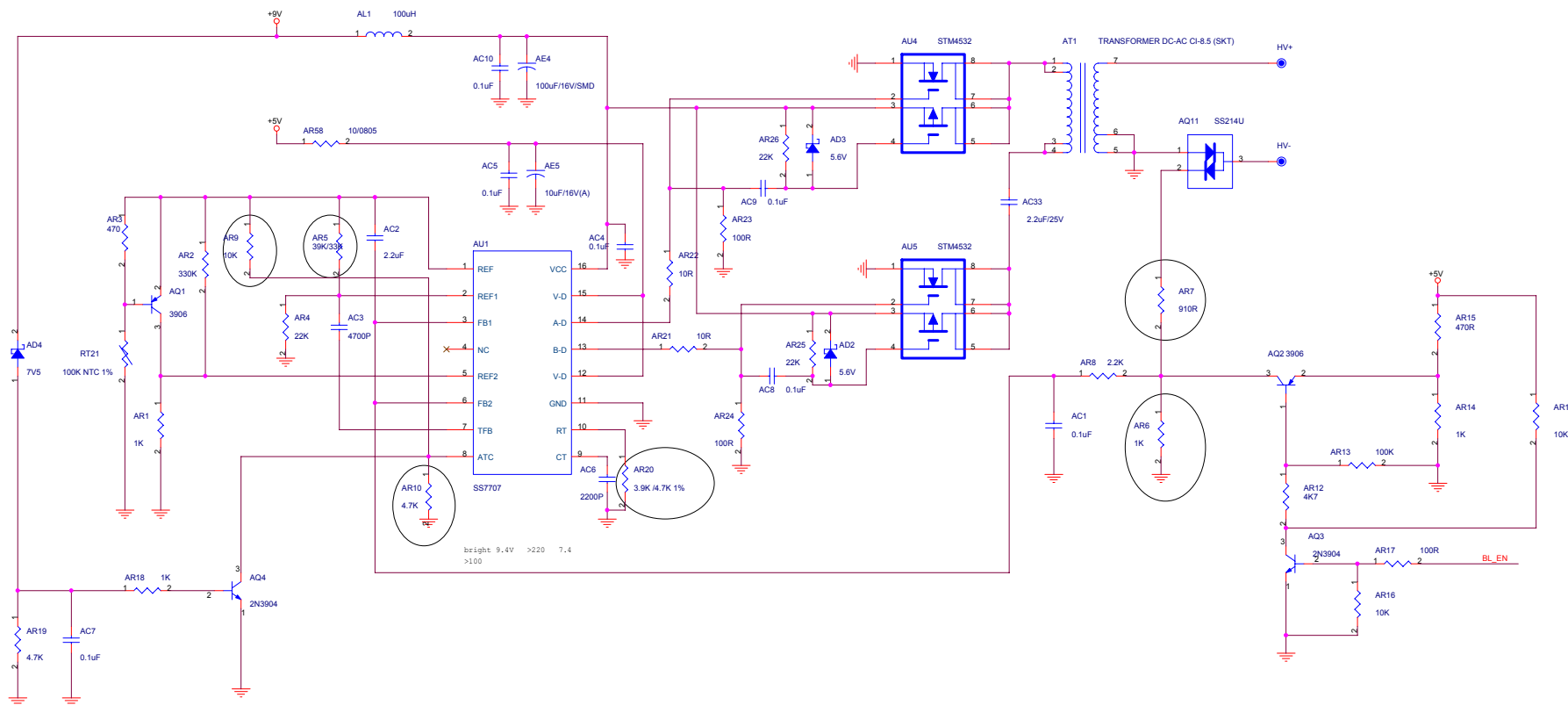


Title		
MAIN BOARD		
Size	Document Number	Rev
B	DCP851&951	Ver 1.0
Date:	Thursday, December 06, 2007	Sheet 9 of 9

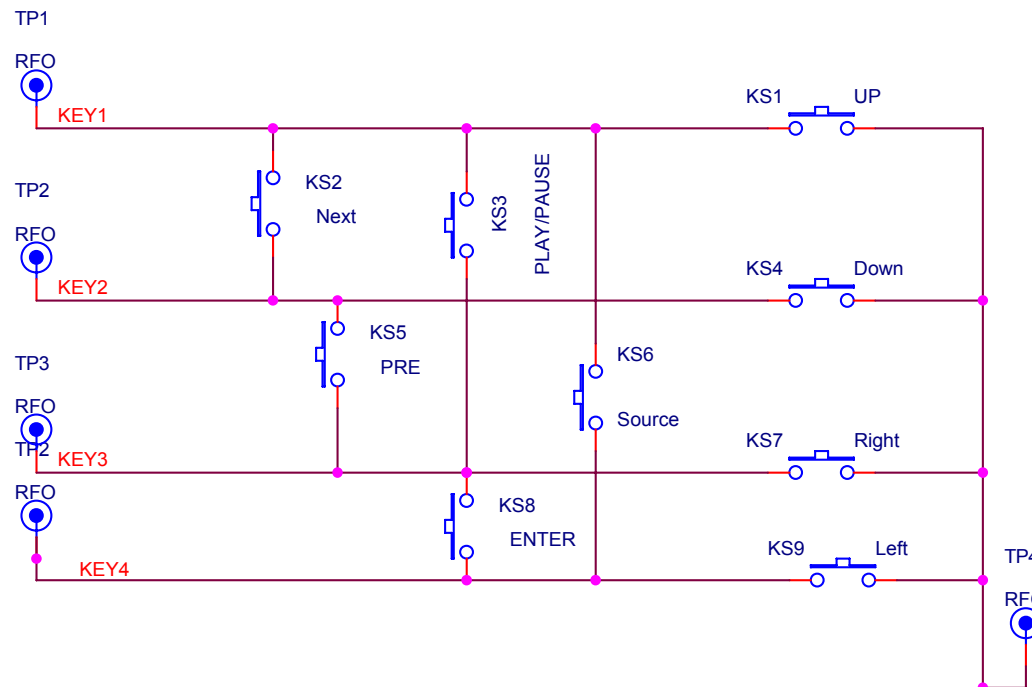


Standard 7" panel:
VGH=+15V/VGL=-10V

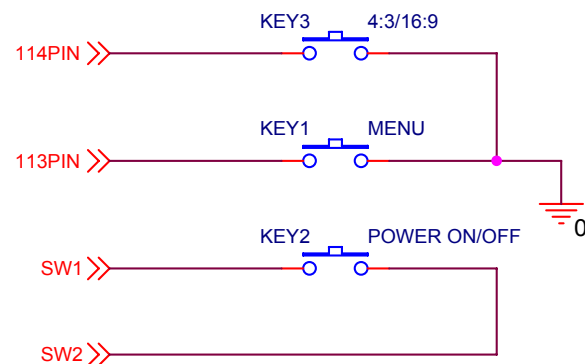
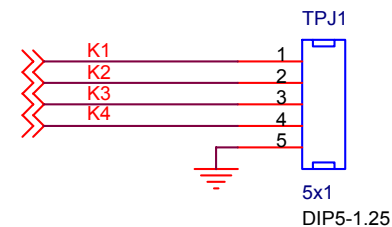
Title				
TFT BOARD				
Size B	Document Number			Rev
	DCP851&951			Ver 1.0
Date:	Thursday, December 06, 2007		Sheet	5 of 9



Title			TFT BOARD
Size	Document Number		Rev
C	DCP851&951		Ver 1.0
Date:	Thursday, December 06, 2007	Sheet	5 of 9

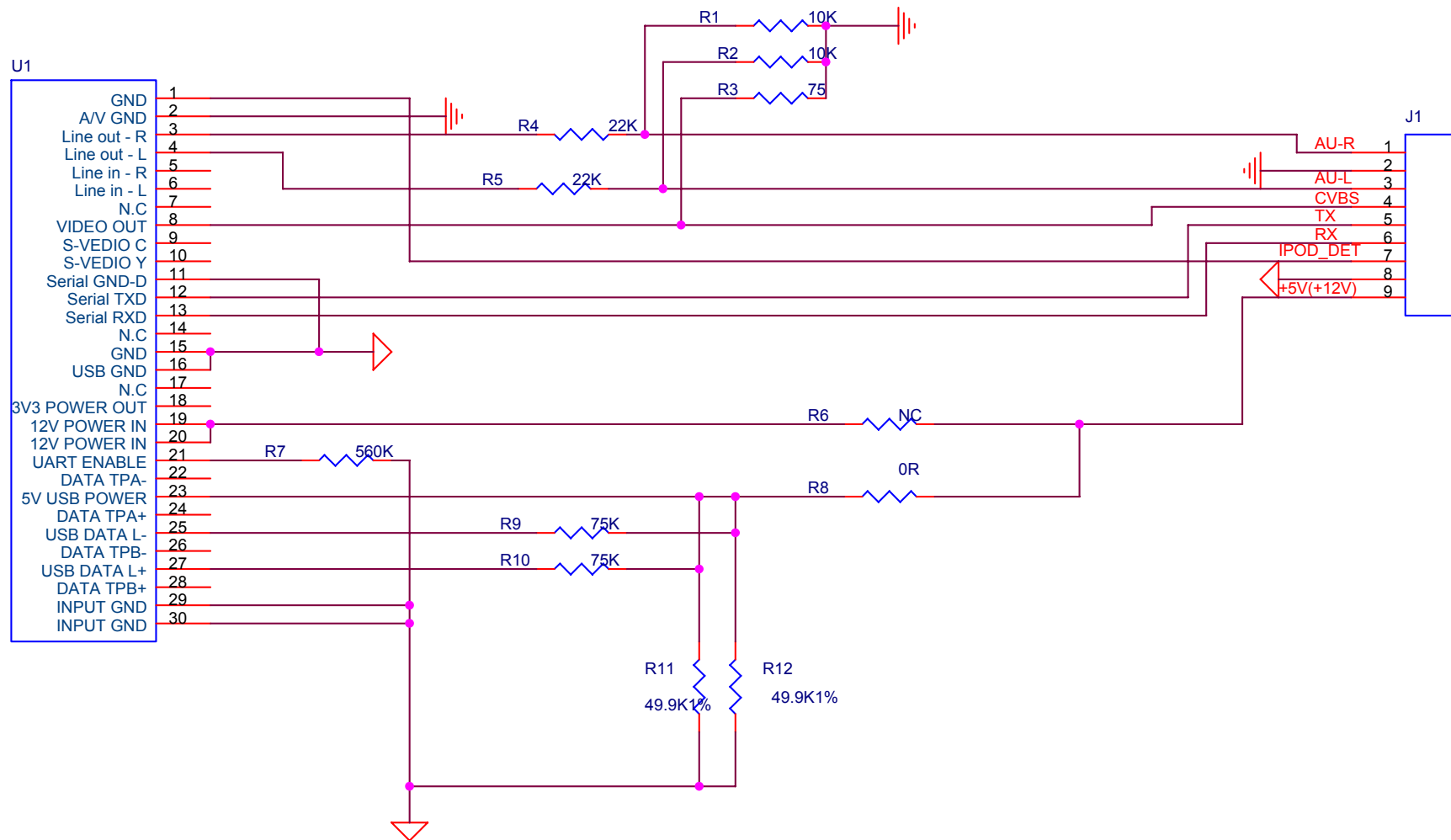


KEY1
KEY2
KEY3
KEY4

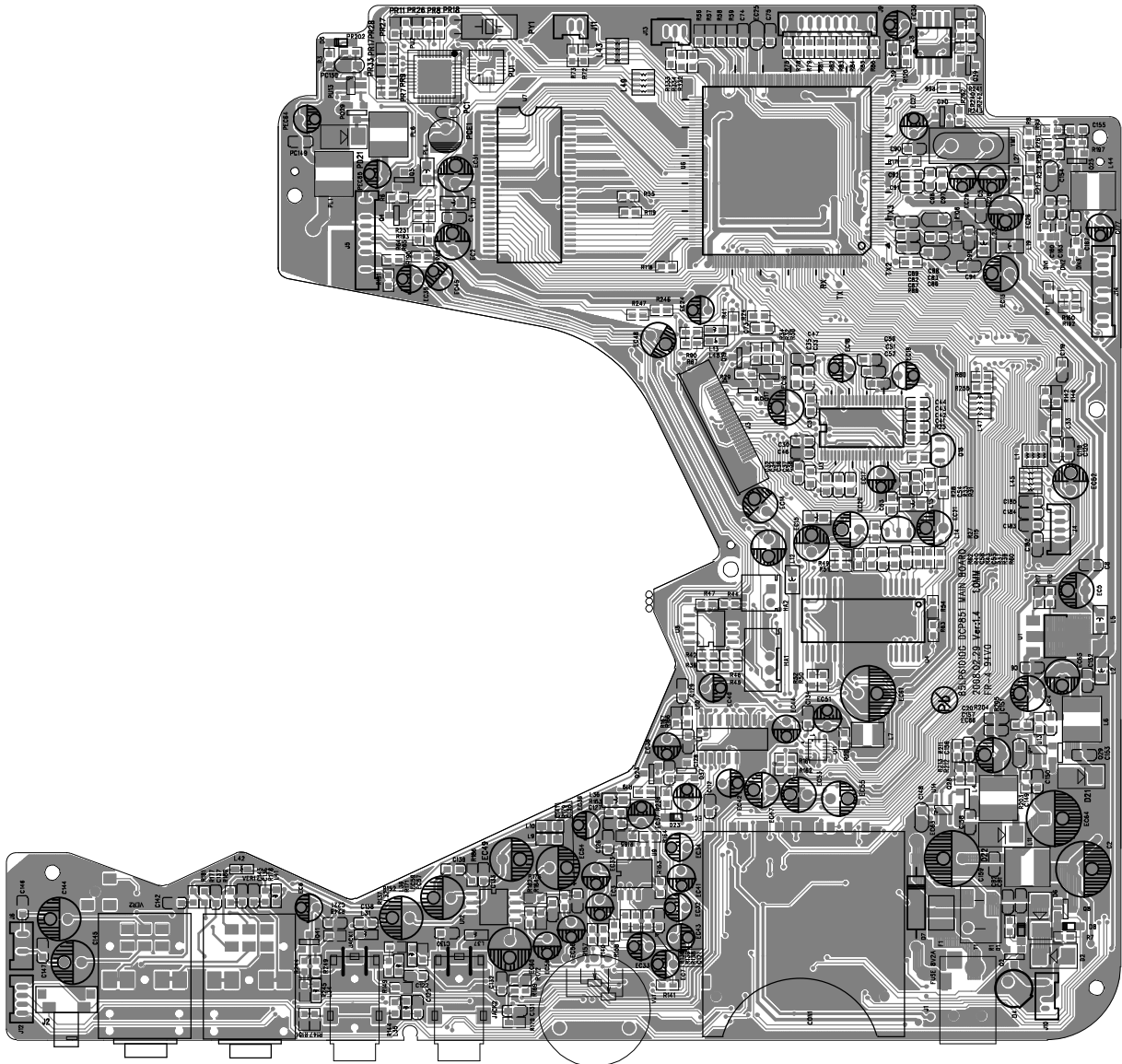


Title		
TFT&KEY BOARD		
Size A	Document Number	Rev Ver 1.0
Date:	Thursday, December 06, 2007	Sheet 5 of 9

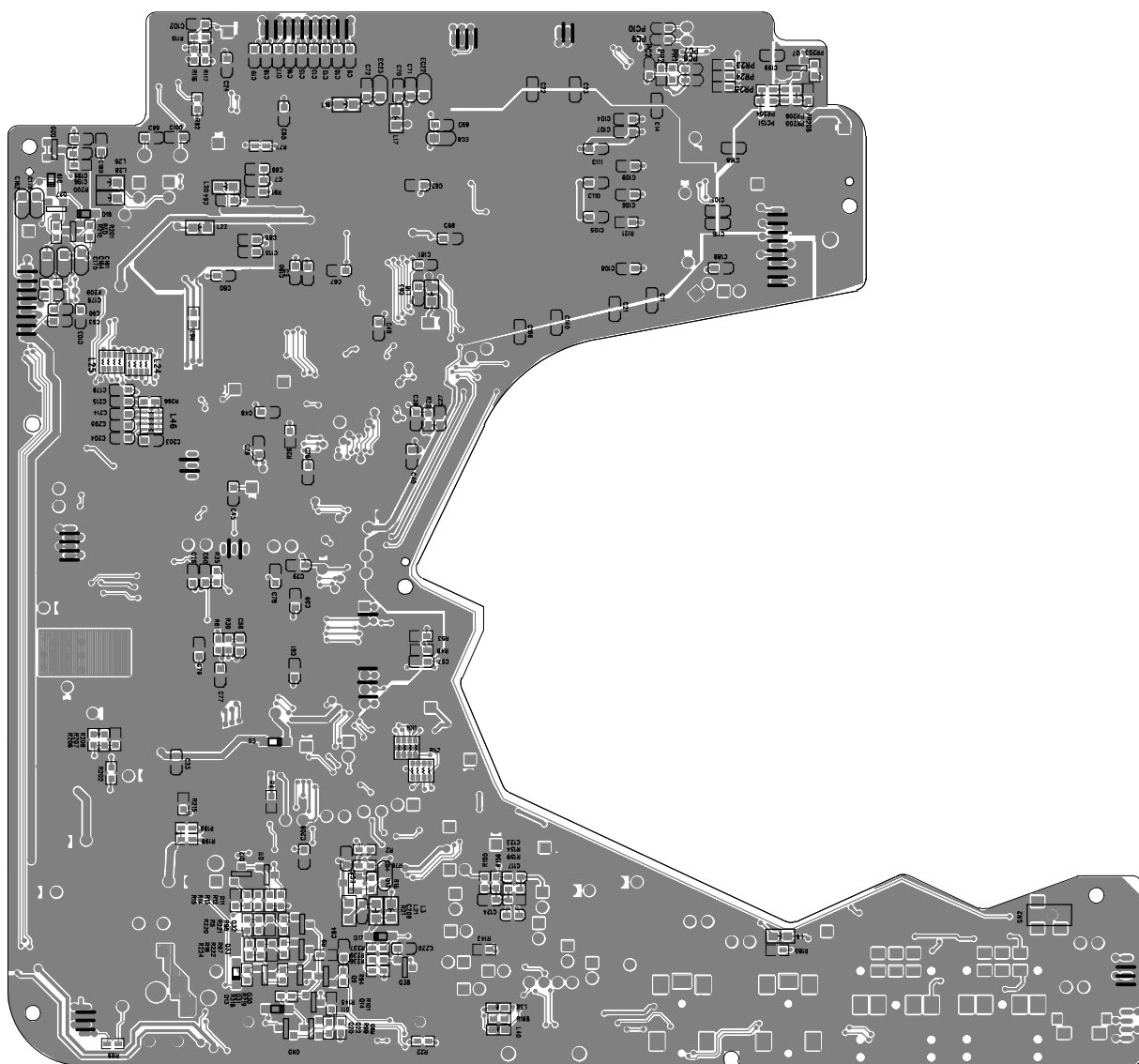
DCP851&951



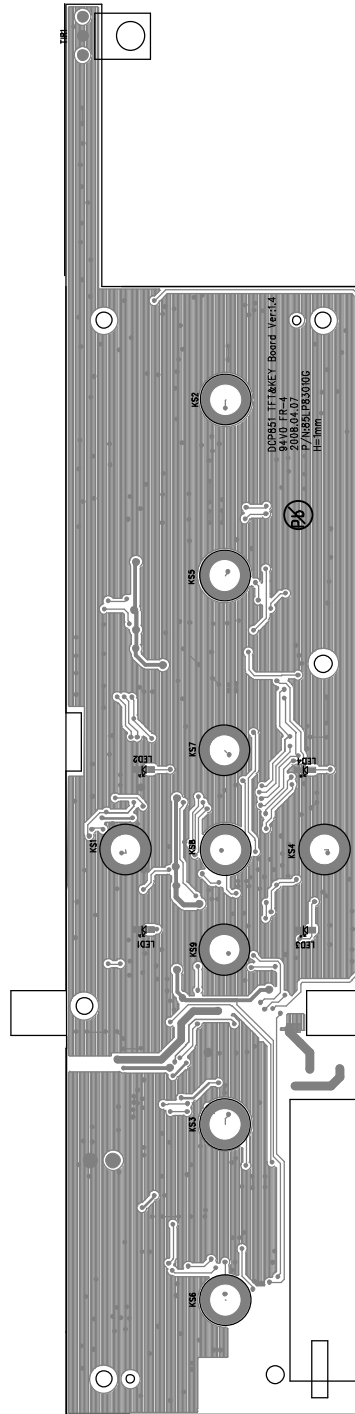
Title		
IPOD CONNECT BOARD		
Size	Document Number	Rev
A	DCP851&951	Ver 1.0
Date:	Thursday, December 06, 2007	Sheet 5 of 9



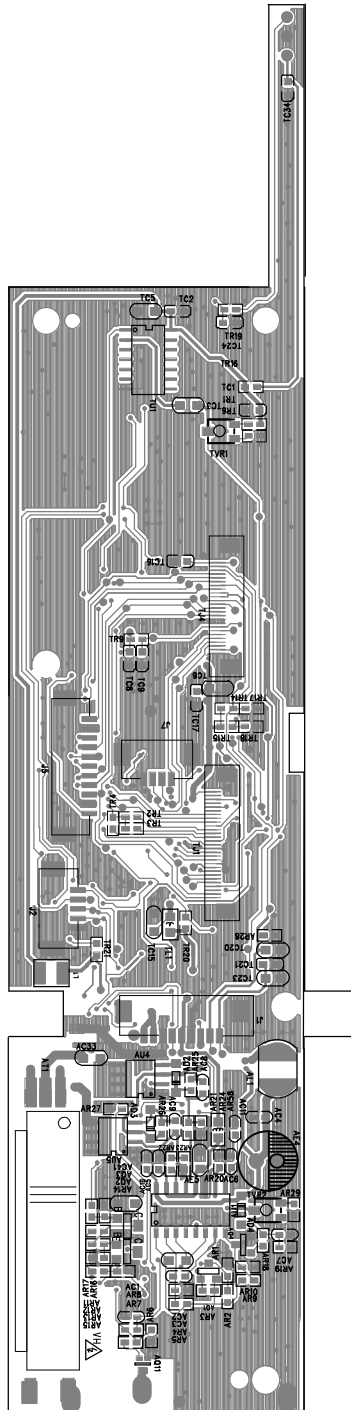
DCP851 MAIN BOARD TOP



DCP851&951 MAIN BOARD BOTTOM



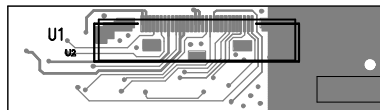
DCP851&951 TFT BOARD TOP



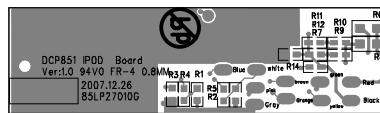
DCP851&951 TFT BOARD BOTTOM



DCP851&951 KEY BOARD TOP



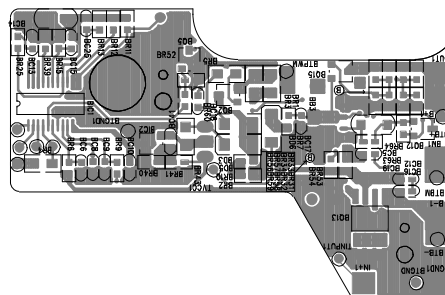
DCP851&951 IPOD BOARD TOP



DCP851&951 IPOD BOARD BOTTOM



DCP851&951 BATTERY BOARD TOP



DCP851&951 BATTERY BOARD BOTTOM

8.0 SERVICE PART LIST

Electrical Part List:

CTN	Service 12NC	Service Description	Photo	Pos. No.
DCP851/37 DCP851/98	996510019520 996510015768	MAIN PCBA		100
DCP851/37 DCP851/98	996510015530 996510015791	TFT DRIVER PCBA		110
DCP851/ALL	996510015425	KEY PCBA		120
DCP851/37 DCP851/98	996510019521 996510015426	IPOD PCBA / CONNECTION PCBA		130
DCP851/ALL	996510015472	BATT PCBA + BATTERY PACK		140

8.0 SERVICE PART LIST

Mechanical Part List:

CTN	Service 12NC	Service Description	Photo	Pos. No.
DCP851/ALL	996510015531	8.5" LCD PANEL AUO		200
DCP851/ALL	996510007686	DVD LOADER 1200X		210
DCP851/ALL	996510002384	FFC 24PIN 130MM		220
DCP851/ALL	996510015429	HOUSING 4PIN 100MM		230
DCP851/ALL	996510015430	HOUSING 5PIN 150MM		240
DCP851/ALL	996510015431	HOUSING 9PIN 60MM		250
DCP851/ALL	996510015432	HOUSING 11PIN 90MM		260
DCP851/ALL	996510015433	DVD TOP CABINET		300

8.0 SERVICE PART LIST

Mechanical Part List:

CTN	Service 12NC	Service Description	Photo	Pos. No.
DCP851/ALL	996510015434	SPEAKER GRILL		310
DCP851/ALL	996510015435	DVD BOTTOM CABINET		320
DCP851/ALL	996510015428	CIRCLE RING SILVER		330
DCP851/ALL	996510015424	CD DOOR		340
DCP851/ALL	996510015439	STAND BLACK		350
DCP851/ALL	996510015440	STAND OPEN KNOB		360
DCP851/ALL	996510015441	STAND HEAD GEAR		370
DCP851/ALL	996510015475	SPRING HOLDER		380

8.0 SERVICE PART LIST

Mechanical Part List:

CTN	Service 12NC	Service Description	Photo	Pos. No.
DCP851/ALL	996510015442	CHARGE RING WHITE		390
DCP851/ALL	996510015443	DOOR SLIDE SPRING		400
DCP851/ALL	996510015444	DOOR SLIDE COVER		410
DCP851/ALL	996510015445	DOOR OPEN KNOB		420
DCP851/ALL	996510015446	CD DOOR SPRING		430
DCP851/ALL	996510015447	SLIDE CHANNEL 1		440
DCP851/ALL	996510015448	SLIDE CHANNEL 2		450
DCP851/ALL	996510015449	DOCKING SPRING		460

8.0 SERVICE PART LIST

Mechanical Part List:

CTN	Service 12NC	Service Description	Photo	Pos. No.
DCP851/ALL	996510015450	IPOD DOCKING CABINET		470
DCP851/ALL	996510015451	DOCKING COVER		480
DCP851/ALL	996510015452	IPOD SOCKET CABINET		490
DCP851/ALL	996510015453	SOURCE KEY		500
DCP851/ALL	996510015454	PLAY / PAUSE KEY		510
DCP851/ALL	996510015455	PREVIOUS KEY		520
DCP851/ALL	996510015456	NEXT KEY		530
DCP851/ALL	996510015457	OK BUTTON		540

8.0 SERVICE PART LIST

Mechanical Part List:

CTN	Service 12NC	Service Description	Photo	Pos. No.
DCP851/ALL	996510015458	NAVIGATION KEY		550
DCP851/ALL	996510015459	PRESS IPOD LOCK PIECE		560
DCP851/ALL	996510015460	PRESS STAND COVER		570
DCP851/ALL	996510015461	PRESS MONITOR		580
DCP851/ALL	996510015462	IPOD LOCK COVER		590
DCP851/ALL	996510015463	IPOD LOCK SPRING		600
DCP851/ALL	996510015464	DOCKING OPEN KNOB		610
DCP851/ALL	996510015465	PRESS STAND KNOB COVER		620

8.0 SERVICE PART LIST

Mechanical Part List:

CTN	Service 12NC	Service Description	Photo	Pos. No.
DCP851/ALL	996510015466	STAND SPRING		630
DCP851/ALL	996510015467	MONITOR KEY		640
DCP851/ALL	996510015468	NENU KEY		650
DCP851/ALL	996510015469	POWER KEY		660
DCP851/ALL	996510015470	POWER RING		670

8.0 SERVICE PART LIST

Accessories Part List:

Service 12NC	Service Description	Photo	Pos. No.
996510010991	CAR ADAPTER		010
996510010992	AC/DC ADAPTER /37 (DCP851/37)		020
996510010378	AC/DC ADAPTER /98 (DCP851/98)		
996510010993	REMOTE CONTROL		030
996510000788	AV CABLE		040
996510010994	IPOD CLASSIC ADAPTER		050
996510010995	IPOD NANO ADAPTER		060
996510010996	IPOD NANO HIGH CLIP		070

8.0 SERVICE PART LIST

996510010997	IPOD TOUCH ADAPTER		080
996510010998	IPOD TOUCH HIGH CLIP		090

9.0 REVISION LIST

Version 1.0 (3141 785 32600)

- Initial release for DCP851/37 (for LatAM) and DCP851/98

Version 1.1 (3141 785 32601)

- Update 12NC of main-board and iPod-board due to quality issue (IPM-30992)